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Ceramics and Nanostructures for Energy Harvesting and Storage

Guest Editors:

Dr. Oleksandr Tkach

Department of Materials and
Ceramics Engineering, CICECO–
Aveiro Institute of Materials,
University of Aveiro, 3810-193
Aveiro, Portugal

Dr. Olena Okhay

Department of Mechanical
Engineering, TEMA-Center for
Mechanical Technology and
Automation, University of Aveiro,
3810-193 Aveiro, Portugal

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Message from the Guest Editors

Dear Colleagues,

During the last few years, worldwide research has been focused on clean and sustainable energy conversion and storage that can respond to the rising energy demands of mankind. To enable the transformation from a fossil fuels to a low-carbon socio-economical epoch, the development of new materials with refined characteristics is necessary. These characteristics include, for example, enhancement of harvesting and conversion efficiencies and improvement of energy storage properties, as well as advanced processes for faster or simpler novel device manufacturing.

This Special Issue aims to collect state-of-the-art contributions in a broad range of subjects related to preparation approaches and characterization techniques of (multi)functional ceramics and nanostructures in the field of energy harvesting and storage. Examples include, but are not limited to, oxide-based materials for capacitors, supercapacitors, thermoelectric generators, and piezoelectric energy harvesters.



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Special Issue



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Editor-in-Chief

Prof. Dr. Shirley Chiang

Department of Physics, University
of California Davis, One Shields
Avenue, Davis, CA 95616-5270,
USA

Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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Nanomaterials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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